Response to Office Action of September 8, 2005

Attorney Docket: EQUUS-095A

Amendment to the claims:

1. (currently amended) An air/fuel ratio device gauge for monitoring a first air/fuel ratio of a first exhaust and a second air/fuel ratio of a second exhaust via respective an engine exhaust mixture of an engine having a first and second plurality of oxygen sensors, the device gauge-comprising:

a gauge housing; and

a gauge controller disposed within the gauge housing and being in electrical communication with the engine, the gauge controller being operative to receive a sensor voltage output signal from each of the plurality of oxygen sensors; and

a gauge disposed adjacent to the gauge housing and being in electrical communication with the oxygen sensors and operative to receive sensor voltage output signals from the oxygen sensors, the gauge having at least two-first and second gauge displays juxtaposed to each other and operative to independently display the received signal of respective first and second oxygen sensors, to to facilitate simultaneous viewing and comparison of the first and second air/fuel ratios of the first and second exhausts. two displays, each gauge display being in electrical communication with the gauge controller and an associated oxygen sensor, each gauge display being operative to independently display sensor information representative of the associated oxygen sensor operation.

2. (currently amended) The device gauge of Claim 1 wherein the gauge housing has at least two sensor terminals in communication with the gauge wherein the sensor terminals are operative to communicate the sensor voltage output signals to the the gauge.

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3. (currently amended) The <u>device gauge of Claim 1 Claim 3</u> wherein each of the gauge displays are <u>is</u> operative to display the associated sensor information independent of the other gauge display based upon the sensor voltage output signal received from the associated sensor.

- 4. (currently amended) The <u>device gauge</u> of Claim 1 wherein the sensor voltage output signal ranges from about 0 volt to about 1 volt.
- 5. (currently amended) The <u>device</u> gauge—of Claim 4 wherein the sensor voltage output signal in a range from about 0 volt to about 0.3 volt represents a substantially greater amount of air than fuel in the engine exhaust mixture.
- 6. (currently amended) The <u>device gauge</u> of Claim 4 wherein the sensor voltage output signal in a range from about 0.301 volt to about 0.7 volt represents a substantially equal amount of air and fuel in the engine exhaust mixture.
- 7. (currently amended) The <u>device gauge</u>—of Claim 4 wherein the sensor voltage output signal in a range from about 0.701 volt to about 1.0 volt represents a substantially greater amount of fuel than air in the engine exhaust mixture.
- 8. (currently amended) The <u>device gauge</u> of Claim 1 wherein the gauge displays include light emitting diodes.
- 9. (currently amended) The <u>device</u> gauge of Claim 1 <u>further comprising</u> wherein the gauge controller includes at least one auto zeroing circuit operative to zero the gauge displays at zero levels, the auto zeroing circuit being in communication with the gauge.
- 10. (currently amended) The <u>device</u> gauge of Claim 1 <u>further comprising</u> wherein the gauge controller includes at least one buffering circuit for attenuating transient

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oscillation of the sensor information displayed by the gauge display, the buffering circuit being in communication with the gauge.

11. (currently amended) An engine system for monitoring a first air/fuel ratio of a first exhaust and a second air/fuel ratio of a second exhaust an engine exhaust mixture, the system comprising:

an engine having <u>first</u> and <u>second</u> a <u>plurality of</u> oxygen sensors <u>for</u> respectively detecting the first and second air/fuel ratios; and

an air/fuel ratio devicegauge, comprising:

a gauge housing; and

a gauge controller disposed within the gauge housing and being in electrical communication with the engine, the gauge controller being operative to receive a sensor voltage output signal from each of the plurality of oxygen sensors; and

a gauge disposed adjacent to the gauge housing and being in electrical communication with the oxygen sensors and operative to receive sensor voltage output signals from the oxygen sensors, the gauge having at least two first and second gauge displays juxtaposed to each other and operative to independently display the received signal of respective first and second oxygen sensors, to to facilitate simultaneous viewing and comparison of the first and second air/fuel ratios of the first and second exhausts. two displays, each gauge display being in electrical communication with the gauge controller and an associated oxygen sensor, each gauge display being

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operative to independently display sensor information representative of the associated oxygen sensor operation.

- 12. (currently amended) The system of Claim 11 wherein the gauge housing has at least two sensor terminals in communication with the gauge wherein the sensor terminals are operative to communicate the sensor voltage output signals to the gauge gauge controller.
- 13. (currently amended) The system of Claim 12 wherein each of the gauge displays are is operative to display the associated sensor information independent of the other gauge display based upon the sensor voltage output signal received from the associated sensor.
- 14. (previously presented)The system of Claim 11 wherein the sensor voltage output signal ranges from about 0 volt to about 1 volt.
- 15. (previously presented)The system of Claim 14 wherein the sensor voltage output signal in a range from about 0 volt to about 0.3 volt represents a substantially greater amount of air than fuel in the engine exhaust mixture.
- 16. (previously presented)The system of Claim 14 wherein the sensor voltage output signal in a range from about 0.301 volt to about 0.7 volt represents a substantially equal amount of air and fuel in the engine exhaust mixture.
- 17. (previously presented)The system of Claim 14 wherein the sensor voltage output signal in a range from about 0.701 volt to about 1.0 volt represents a substantially greater amount of fuel than air in the engine exhaust mixture.
- 18. (previously presented)The system of Claim 11 wherein the gauge displays include light emitting diodes.

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19. (currently amended) The system of Claim 11 <u>further comprising wherein the gauge controller includes</u> at least one auto zeroing circuit operative to zero the gauge displays at zero levels, the <u>auto zeroing circuit being in communication with the gauge</u>.

20. (previously presented)The system of Claim 11 <u>further comprising wherein the</u> gauge controller includes at least one buffering circuit for attenuating transient oscillation of the sensor information displayed by the gauge display, the buffering circuit being in <u>communication with the gauge</u>.